

REMARKS

Claims 1, 3-10, 13, 15-18, 21-30, 33, 35-37, 40-41, 44-45 and 47-60 are pending. Applicants note with appreciation the indication that Claim 33 is allowed and that Claim 13 would be allowable if rewritten to incorporate the limitations of the base claims and intervening claims from which it depends. Applicants respectfully traverse the rejections of the remaining pending claims as set forth below.

Claim Rejections – 35 U.S.C. § 112

The claims including the term “generally” are rejected as being indefinite because “one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.” The claims use the term “generally” in conjunction with shape limitations in the claims. Specifically, the term “generally” modifies the terms “circular,” “spherical,” “cross-shaped,” and “conically shaped” to indicate that the proscribed shapes need not be perfect in appearance, but should be recognizable to one of ordinary skill in the art. The term “generally” is used throughout the specification in a manner consistent with this meaning. See e.g., ¶ 44 of the specification.

The term “generally” is well known to and used by those of ordinary skill in the cigarette arts to indicate that the shape of cigarette components need not be perfect. In fact, the prior art repeatedly relied upon by the Office in its numerous Office Actions to date includes a claim that recites a filter rod with an inner member “crimped to form a *generally Y-shaped* cross section.” See Berger et al. U.S. Pat. No. 3,599,646 (“Berger ‘646”) at Claim 28. Clearly, Berger ‘646 demonstrates that those of ordinary skill in the art have long understood the meaning of the term “generally” when used in conjunction with cigarette component shapes. Withdrawal of the section 112 rejections is requested.

Claim Rejections – 35 U.S.C. § 102

Claims 1, 3, 5, 8-10, 16, 18, 21, 23-26, 29-30, 36, 41, 44-45 and 51-54 are rejected as being anticipated by Leake et al. U.S. Pat. No. 3,428,049 (“Leake”). Claims 1 and 41 (and dependent Claims 3, 5, 8-10, 16, 21, 44-45 and 51-53) recite a cavity, “wherein said cavity includes a first region for receipt of the [at least one breakable]

capsule and a second region for receipt of capsule contents following rupture of the capsule.” Similarly, Claim 54 recites, “excess air space in said cavity, said excess air space being unoccupied by the breakable capsule.” Leake does not disclose a cavity with a second region for receipt of capsule contents or excess air space unoccupied by a breakable capsule. The figures and written specification of Leake leave no room for debate over the absence of any excess air space or region for receipt of capsule contents. Specifically, Leake discloses, “[t]he requirements of the body material [in which the capsule is embedded] are that it be capable of being compressed to a relatively stable shape and that it have sufficient resiliency, when wet by the liquid component of the capsule, to expand and fill the void originally occupied by the capsule.” See Leake at col. 2, lines 32-36. This explanation, when taken in conjunction with Figs. 1 and 2 of Leake clearly indicates the absence of excess space in the cigarette filter of Leake for capsule contents. Accordingly, Leake does not disclose all elements of the foregoing claims and the rejections should be withdrawn.

Claim 18 recites a cavity “extending from the proximal end of the filter element” which is “an end proximal to the tobacco rod.” In Leake, filter material is present between the cavity, which is fully occupied by a capsule, and the tobacco rod. The filter disclosed in Leake comprises “a body of compressed absorbent material” and a capsule “positioned within said body.” The capsule is broken “to release its liquid medium content into the body of compressed absorbent material.” See Leake at Fig. 1 and col 1, lines 45-53. Thus, the cavity in Leake does not extend from the end of the filter proximal to the tobacco rod. Rather, the cavity in Leake is embedded within filter material and is unexposed to the tobacco rod. Accordingly, Leake does not anticipate Claim 18.

Claim 23 (and dependent Claims 24-26, 29-30 and 36) recites, “a cavity extending into the first filter segment from the end of the first filter segment distal from the tobacco rod,” and “a second filter segment positioned at the end of the first filter segment distal from the tobacco rod.” In Leake, filter material in the first filter segment is present between the cavity, which is fully occupied by a capsule, and a second filter segment. As noted above, the filter disclosed in Leake comprises “a body of compressed absorbent material” and a capsule “positioned within said body.” The capsule is broken “to release its liquid medium content into the body of compressed

absorbent material.” See Leake at Fig. 1 and col 1, lines 45-53. Thus, the cavity in Leake also does not extend into a first filter segment from an end distal from the tobacco rod. The cavity in Leake is embedded within filter material and is unexposed to the second filter element. Accordingly, Leake does not anticipate Claim 23 or its dependent claims.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 3-10, 15-16, 18, 21-30, 35-36, 41, 44-45, 47-55 and 57-60 are rejected as being obvious over Berger et al. U.S. Pat. No. 3,599,646 (“Berger ‘646”) in view of Dock U.S. Pat. No. 3,625,228 (“Dock”). In order to establish a *prima facie* case of obviousness, three basic criteria must be met. See MPEP § 706.02(j) and §2143; In re Vaeck, 947 F.2d 488, 20 USPQ.2d 1438 (Fed. Cir. 1991). First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See MPEP § 2143.01; In re Nielson, 816 F.2d 1567, 1569 (Fed. Cir. 1987), citing In re Linter, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Second, there must be a reasonable expectation of success. See MPEP § 2143.02; In re Merck & Co., Inc., 800 F.2d 1091, 231 SUSPQ 375 (Fed. Cir. 1986). Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP § 2143.03; In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Appellant’s disclosure. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991) (emphasis added).

The rejections fail to identify any language in Berger or Dock that would have motivated one of ordinary skill in the art to modify Berger to include the heat-activated capsules of Dock. Accordingly, the rejections must explain how the motivation for the combination was generally available to one of ordinary skill in the art. In re Kotzab, 217 F.3d 1365, 1371, 55 U.S.P.Q.2D (BNA) 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); In re Rouffet, 149 F.3d 1350, 1359, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed.

Cir. 1998) (“[T]he Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination... the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the invention obvious.”); In re Fritch, 972 F.2d 1260, 1265, 23 U.S.P.Q.2D (BNA) 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references”).

The Examiner has not provided a satisfactory explanation in this regard. The only explanation that has been offered is an assertion that it would have been obvious to include Dock’s capsules in Berger’s filter “in order to receive the benefit of heat-activated capsules for imparting much-desired flavor” to cigarette smoke. This explanation is unconvincing given the description of the heat-activated capsules disclosed in Dock. In fact, Dock teaches away from the claimed invention, not toward it, and therefore one of ordinary skill in the art would not have an expectation of success if Dock were combined with Berger. The Dock capsules are intended to release fluid to create a “wet filter” by embedding heat-activated capsules within “absorbent, expansible material.” See Dock at col. 1, lines 8-31. Dock intentionally embeds the liquid containing capsules in the filter material and provides a “buffer member” with “a small bore at the interior end” between the capsules and the tobacco rod because it “prevents the leakage of fluid back through the buffer member into the tobacco.” Thus, it is Dock’s stated objective to prevent the liquid from the capsules from contacting the tobacco in the cigarette. The substitution of the heat-activated capsules into the filter of Berger would completely undermine Dock’s objective. Loose capsules in the cavity in the Berger filter would not only be exposed to the tobacco, but could roll directly up to and against the tobacco. One of ordinary skill in the art who followed the teachings of Dock, and therefore would want to prevent the tobacco from getting wet, would not place heat-activated capsules, or any liquid containing capsules for that matter, in the cavity taught by Berger because it would likely result in wetting the tobacco. In view of the foregoing, the combination of Dock with Berger cannot be maintained because neither the motivation for the combination, nor the required expectation of success is provided.

Secondly, the combined references fail to teach numerous elements of many of the claims rejected as obvious over Berger in view of Dock. Claims 1, 3-5, 7-10, 15-16, 21-22, 51-53 and 60 recite, *inter alia*, a filter element incorporating “a cavity” defined by an inner element of filter material where the cavity includes “a first region for receipt of the . . . capsule and a second region for receipt of capsule contents.” Claims 41 and 44-45 recite, *inter alia*, “an inner element defining a cavity” where the cavity includes “a first region for receipt of the capsule and a second region for receipt of capsule contents.” Claim 48 recites, *inter alia*, a filter element having “excess air space” in a cavity which is unoccupied by the breakable capsule. Claims 54-55 and 57-58 recite, *inter alia*, a filter element comprised of a “cavity defined by the inner element of filter material” and “excess air space in said cavity.” The concept of a cavity with excess air space is taught away from by Dock. In Dock, the capsules are embedded in absorbent expansible filter material that captures all of the liquid released by the capsules. This requirement of Dock would be undermined by using the Berger cavity filter with the Dock capsules.

Thus, each of Claims 1, 3-5, 7-10, 15-16, 21-22, 41, 44-45, 48, 51-55, 57-58 and 60 requires either a second region in the cavity for receipt of capsule contents or excess, unoccupied, space in the cavity for the same purpose. The claimed cavity includes sufficient space to receive capsules during manufacture and space to receive capsule contents after breakage. None of the references relied upon teaches a cavity that is purposefully designed to, not only receive during manufacture and hold one or more capsules, but also provide excess space for release of the capsule contents. As noted above, in Dock, the capsules are embedded in material as opposed to being provided in an open space adapted to receive the capsule contents. Because none of the references relied upon for the rejection of Claims 1, 3-5, 7-10, 15-16, 21-22, 41, 44-45, 48, 51-57 and 60, taken individually or in combination, disclose a cavity with a first region for receipt of a capsule and a second region for receipt of capsule contents, and/or excess, unoccupied, space in the cavity, reconsideration and withdrawal of the rejection of these claims is respectfully requested.

Claims 49-50 recite, *inter alia*, a generally conically shaped cavity including a crimped end surrounded by filter material in combination with at least one capsule disposed in the cavity. Claim 59 recites a partially crimped inner filter element which is

generally conically shaped. By surrounding the crimped end with filter material, the cavity is adapted to attain a functional shape for smoking after being compressed to break the capsule(s) contained therein. The references relied upon do not teach the combination of all the elements recited in these claims. Accordingly, reconsideration and withdrawal of the rejections of Claims 49-50 and 59 is requested.

Claims 15, 17, 35, 37, 40 and 55-56 are rejected as being obvious in view of Leake. The obviousness rejections over Leake focus solely on Leake's failure to disclose the use of "cellulose acetate" for certain specified claimed filter elements. There are numerous other elements in addition to the cellulose acetate filter elements, however, that Leake fails to disclose, and which require that the claims be found nonobvious.

Claims 15 and 17 recite a cavity, "wherein said cavity includes a first region for receipt of the [at least one breakable] capsule and a second region for receipt of capsule contents following rupture of the capsule." Similarly, Claims 55-56 recite, "excess air space in said cavity, said excess air space being unoccupied by the breakable capsule." As noted above, Leake does not disclose a cavity with a second region for receipt of capsule contents or excess air space unoccupied by a breakable capsule. Instead, Leake discloses, "[t]he requirements of the body material [in which the capsule is embedded] are that it be capable of being compressed to a relatively stable shape and that it have sufficient resiliency, when wet by the liquid component of the capsule, to expand and fill the void originally occupied by the capsule." See Leake at col. 2, lines 32-36. This explanation, when taken in conjunction with Figs. 1 and 2 of Leake clearly indicates the absence of excess space in the cigarette filter of Leake for capsule contents because that space is fully occupied by the capsule, and thus these claims are nonobvious.

With respect to Claims 35, 37 and 40, each recites "a cavity extending into the first filter segment from the end of the first filter segment distal from the tobacco rod," and "a second filter segment positioned at the end of the first filter segment distal from the tobacco rod." In Leake, filter material in the first filter segment is present between the cavity and a second filter segment. Thus, the cavity in Leake does not extend into a first filter segment from an end distal from the tobacco rod. The cavity in Leake is

embedded within filter material and is unexposed to the second filter element. Accordingly, Leake does not render Claims 35, 37 and 40 obvious.

Still further, Claims 35 and 37 recite that the first filter segment comprises "a longitudinally extending central portion" and a "longitudinally extending outer portion of filter material positioned annularly around the central portion" wherein the cavity is defined by the "central portion." These elements, as defined in applicants specification, are also absent from Leake.

Conclusion

In sum, the claims expressly recite limitations which are not disclosed in the prior art, or rendered obvious thereby. For example, the express recitation in the claims of a "cavity" with "a first region for receipt of the at least one breakable capsule and a second region for receipt of capsule contents" simply is not found in the prior art or obvious. In view of the foregoing, Applicants respectfully request that the rejections of Claims 1, 3-10, 15-18, 21-30, 35-37, 40, 41, 44-45 and 47-60 be withdrawn and the present application be allowed with all pending claims. Should the Office believe anything further is required to place the application in condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,



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